

Claims

1. An apparatus in a telecommunication system for providing access to telecommunication services to subscribers at user terminals (10, 20), each of which being separately connected to at least one access point (30, 60) via high speed modems (12, 22) and a communication network (24), the at least one access point (30, 60) comprising high speed modems,

characterised in that

high speed modems (12, 22) associated with the user terminals (10, 20) are provided with a switching functionality;

high speed modems (50) at the station side (34) of the communication network (24) are provided with a switching functionality; and

a control means (70) is adapted to switch transmission paths of established connections between user terminals (10, 20) and the at least one access point (30, 60) if necessary, so as to guarantee at least one connection.

2. An apparatus in a telecommunication system according to claim 1, **characterised in that**

an access means (12, 22) is provided with a second modem enabling initial installation with a control means (70) to monitor the installation and establish a connection.

3. An apparatus in a telecommunication system according to claim 2, **characterised in that**

the control means (70) is adapted to retrieve subscriber information to individualise the established connection.

4. An apparatus in a telecommunication system according to anyone of claims 1-3, **characterised in that,**

a pool of filters (36) is connected directly to the station side (34) of a first access node (30).

- 5 5. An apparatus in a telecommunication system according to anyone of claims 1-3, **characterised in that,**

a pool of filters (36) is connected in front of at least one line card connector (65) of a second access node (60).

- 10 6. An apparatus in a telecommunication system according to anyone of preceding claims, **characterised in that,**

a management system (80) is provided to process retrieved additional user information whereby the established connection can be adapted according to user specifications.

- 15 7. A method in a telecommunication system for providing access to telecommunication services to subscribers at user terminals (10, 20), each of which being separately connected to at least one access point (30, 60) via high speed modems (12, 22) and a communication network (24), the at least one access point (30, 60) comprising high speed modems,
20 **characterised by the steps of**

transmission of a signal from an access means (12, 22) including user terminal identity to a control means (70);

searching, by the control means (70), for an available connection path for the access means (12, 22) at an access point (40, 50);

25 creating, by the control means (70), a bi-directional high speed data transmission path between the user terminal (10, 20) and the at least one access point (30, 60); and

activating, by the control means (70), the transmission path between the user terminal (10, 20) and the at least one access point (30, 60).

8. A method in a telecommunication system according to claim 7, further **characterised** by the steps of

switching high speed modems (12, 22) associated with the user terminals (10, 20) between two transmission paths;

- 5 switching high speed modems (50) at the station side (34) of the communication network (24) between two transmission paths; and

controlling, by a control means (70), the switching of connections between user terminals (10, 20) and the at least one access point (30, 60), so as to guarantee at least one connection.